(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau

[WIPO]

[Bar Code]

(43) International Publication Date

October 20, 2005 (10/20/2005)

PCT

(10) International Publication Number

WO 2005/098284 A2

(51) International Patent Classification⁷:

F16K

- International Application No.: PCT/EP2005/001124
- International Filing Date: February 4, 2005 (02/04/2005)
- Language in which the international application was originally filed:
- (26) Language in which the international application is published: German
- Priority Data: 10 2004 014 377.3 March 17, 2004 (03/17/2004) DE
- Applicant (for all designated states except the U.S.): HYDAC FILTERTECHNIK GMBH [DE/DE]; Industriegebiet, 66280 Sulzbach/Saar (DE).

(54) Title: NON-RETURN VALVE

- (72) Inventor; and
- (75) Inventor/Applicant (U.S. only): KLEIN, Volkmar [DE/DE]; Maxstr. 24, 66482 Zweibrücken (DE).
- (74) Representative: BARTELS UND PARTNER, PATEN' ATTORNEYS; Lange Str. 51, 70174 Stuttgart (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[continued on next page]

23

15

- (57) Abstract: The inventive non-return valve comprises valve body (1) which defines an internal fluid through-opening (7) extending along the longitudinal axis (5) of the body, comprising a seat body (17) defining a valve seat (31) arranged in said through opening (7) and a closing body (35) which is axially displaceable in the through opening (7) oppositely to a closing force produced by a closing spring (45) between a closed position applied to the seat body (17) and an open position lifted from the valve seat (31) on the closing body (35), wherein the valve body (1) forms a guid along which the seat body (17) is axially displaceable in different adjusting positions corresponding to the desired preloads of the closing spring (45) and, consequently to the desired adjustments of the closing force quantity of said closing spring (45).
- (57) Zusammenfassung: Bei einem Rückschlagventil mit einem Ventilgehäuse (1), das einen inneren, sich entlang von dessen Längsachse (5) erstreckenden Fluiddurchlass (7) definiert, mit einem im Durchlass (7) befindlichen, einen Ventilsitz (31) definierenden Sitzkörper (17) und mit einem Sperrkörper (35), der für die Bewegung zwischen einer am Sitzkörper (17) anliegenden Sperrstellung und vom Ventilsitz (31) am Spenkörper (35) abgehobenen Öffnungsstellungen gegen die Schliesskraft einer Schliessfeder (45) im Durchlass (7) axial bewegbar ist, bildet das Ventilgehäuse (1) eine Führung, längs deren der Sitzkörper (17) in unterschiedliche Einstellpositionen axial verschiebbar ist, die gewünschten Vorspannungen der Schliessfeder und damit gewünschten Einstellungen der Grösse der Schliesskraft der Schliessfeder (45) entsprechen.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TY, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, GB, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

Without International Search Report. Publication will be repeated upon receipt of that report.

Reference is made for an explanation of the two-letter codes and the other abbreviations to the Guidance Notes on Codes and Abbreviations in the front section of each regular PCT Gazette edition.